

What is claimed is:

1. A method of producing surface seeded exposed particulate concrete having a generally flat exposed particulate surface suitable for flooring applications, the method comprising:

- a) preparing a subgrade to a desired grade;
- b) pouring a concrete mixture over the subgrade;
- c) screeding the concrete mixture to a desired grade and forming a top surface thereof;
- d) finishing the top surface of the concrete mixture with a float to seal the top surface and disposing a quantity of cement/fines derived from the concrete mixture at the top surface of the concrete mixture to form an upper surface of cement/fines concrete paste;
- e) spraying a quantity of particulate upon the upper surface of cement/fines concrete paste;
- f) mixing the quantity of particulate into the cement/fines concrete paste with a float to form an exposed surface of a depth of a mixture of surface-concentrated particulate and cement/fines concrete paste;
- g) applying a surface retarder uniformly over the exposed surface of the surface-concentrated particulate and cement/fines concrete paste;
- h) washing surface films from the exposed surface;
- i) curing the concrete mixture and paste to form a cured mixture and a cured paste; and
- j) washing the exposed surface to remove surface residue therefrom.

2. The method of Claim 1 wherein the exposed particulate surface comprises a material reactable with a hydrolyzed alkali silica to form an insoluble silicate

structure.

3. The method of Claim 2 further comprising after said washing the exposed surface, applying a chemical treatment of hydrolyzed alkali silica solution uniformly over the exposed surface in a quantity sufficient to penetrate only the depth of the surface-concentrated particulate and cement/fines concrete paste.

4. The method of Claim 3 wherein the hydrolyzed alkali silica is a hydrolyzed lithium quartz solution.

5. The method of Claim 3 wherein said applying of chemical treatment causes penetration of the hydrolyzed alkali metal and silica compound into the upper surface of the concrete mixture through a distance greater than the mean diameter of the particulate.

6. The method of Claim 2 wherein the particulate comprises glass.

7. The method of Claim 2 wherein the particulate comprises organic materials.

8. The method of Claim 7 wherein the organic material comprises sea shells.

9. The method of Claim 1 wherein the particulate comprises coarse sand.

10. The method of Claim 9 wherein the particulate comprises Monterey Aquarium coarse sand.

11. The method of Claim 1 wherein the particulate has a mean diameter size of less than three-eighths of one inch.

12. The method of Claim 1 wherein said spraying the quantity of particulate is accomplished using a material gun.

13. The method of Claim 1 wherein said spraying uniformly sprays the quantity of particulate.

14. The method of Claim 1 wherein said spraying includes spraying some of the quantity of particulate a distance of at least twenty feet.

15. The method of Claim 1 wherein said applying of

the surface retarder causes penetration of the surface retarder into the upper surface of the concrete mixture through a distance greater than the mean diameter of the particulate.

16. The method of Claim 1 wherein the particulate is sprayed over the upper surface of the concrete mixture at an approximate rate of one pound per square foot of concrete mixture.

17. The method of Claim 1 wherein said mixing comprises using a float in a circular motion to cover the particulate with the cement/fines concrete paste.

18. The method of Claim 1 wherein between said mixing and said applying the surface retarder, the method further comprises sponging in a circular motion any areas of the upper surface of the concrete mixture.

19. The method of Claim 1 wherein said washing of surface film comprises:

(i) applying water to the upper surface of the concrete mixture; and

(ii) lightly brushing the upper surface of the concrete mixture.

20. The method of Claim 19 wherein said lightly brushing removes no more than five percent of the particulate from the upper surface of the concrete mixture.

21. The method of Claim 1 wherein said washing of the upper surface of the concrete mixture to remove surface residue therefrom comprises washing the upper surface of the concrete with a mixture of water and muriatic acid.

22. The method of Claim 1 wherein between said applying of the surface retarder and said washing surface film, the method further comprises covering the upper surface of the concrete mixture with a vapor barrier.

23. The method of Claim 22 wherein said covering the upper surface of the concrete mixture with a vapor barrier extends for a period of two to twenty-four hours.

24. The method of Claim 1 wherein said curing comprises curing the concrete mixture by use of a fogger.

25. The method of Claim 1 wherein said curing comprises curing the concrete mixture by use of a soaker hose.

26. The method of Claim 1 further comprising placing reinforcement means upon the prepared subgrade to be disposed within the poured concrete mixture.

27. The method of Claim 1 wherein said pouring comprises mixing the concrete mixture with a color additive.

28. The method of Claim 1 wherein after said curing the concrete mixture, the method further comprises altering the surface roughness of the upper surface of the concrete mixture.

29. The method of Claim 1 wherein prior to said spraying the quantity of particulate, the method further comprises washing the quantity of particulate with potable water and air drying the quantity of particulate.

30. The method of Claim 1 wherein said preparing the subgrade comprises compacting the subgrade to approximately ninety percent compaction.

31. The method of Claim 1 wherein said preparing the subgrade further comprises placing a layer of sand between the subgrade and the poured concrete mixture.

32. A surface seeded exposed particulate concrete product formed by the method of Claim 1.